

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A method comprising:
receiving a source ~~article~~ web page document;
identifying a plurality of regions in the previously received source ~~article~~ web page document;
determining at least one local concept expressed in each previously identified region,
wherein determining the at least one local concept comprises identifying words in the document
and aligning the words with concepts, wherein a local concept expressed in a region is a concept
expressed by two or more words in the region;
analyzing the previously determined local concepts of each region to identify one or more
unrelated concepts having a relatively low degree of relationship with local concepts of other
regions;
eliminating the previously identified unrelated concepts from a determination of a source
meaning for the source ~~article~~ web page document, wherein the source meaning for the source
web page document is a weighted vector of the relevant concepts expressed in the source web
page document; and
matching the source ~~article~~ web page document with an item selected from a set of items
~~based at least in part on a relationship between~~ by comparing the previously determined source
meaning and a meaning of the item.
2. (Currently Amended) The method of claim 1, further comprising ~~displaying~~ causing
the matched item to be displayed on the source ~~article~~ web page document at a display device.

3. (Currently Amended) The method of claim 2, wherein~~[[:]]~~
~~the source article comprises a web page; and~~
the matched item comprises a keyword.
4. (Currently Amended) The method of claim 2, wherein~~[[:]]~~
~~the source article comprises a web page; and~~
the matched item comprises an advertisement.
5. (Currently Amended) The method of claim 1, further comprising displaying content associated with the matched item on the source ~~article~~ web page document.
6. (Currently Amended) The method of claim 5, wherein:
~~the source article comprises a web page;~~
the matched item comprises a keyword; and
the associated content comprises an advertisement.
7. (Currently Amended) The method of claim 5, wherein:
~~the source article comprises a first web page;~~
the matched item comprises a second web page; and
the associated content comprises an advertisement.
8. (Currently Amended) The method of claim 5, wherein:
~~the source article comprises a first web page;~~
the matched item comprises a second web page; and
the associated content comprises a link to the second web page.
9. (Currently Amended) The method of claim 1, wherein matching the source ~~article~~ web page document with the item comprises matching the source ~~article~~ web page document with the item using a biasing factor.
10. (Canceled)

11. (Previously Presented) The method of claim 1, wherein:
determining at least one local concept comprises determining a score for each local concept; and
the local concept with the highest score in each region comprises a most relevant local concept for that region.

12. (Previously Presented) The method of claim 11, wherein identifying unrelated regions comprises:
determining a revised score for each local concept ;
determining a ranked global list of all local concepts based on the revised scores;
removing local concepts whose combined revised score contributes less than a predetermined amount of a total score of the global list to produce a resulting list;
identifying unrelated regions without a most relevant local concept on the resulting list;
and
removing local concepts expressed in the unrelated regions from the resulting list to produce a list of relevant concepts.

13. (Previously Presented) The method of claim 12, wherein determining the source meaning comprises normalizing the revised scores for the relevant concepts.

14. (Currently Amended) An article comprising one or more computer-readable media containing program code operable to cause one or more machines to perform operations, the operations comprising:

receiving a source ~~article~~ web page document;
identifying a plurality of regions in the previously received source ~~article~~ web page document;
determining at least one local concept expressed in each previously identified region,
wherein determining the at least one local concept comprises identifying words in the document and aligning the words with concepts, wherein a local concept expressed in a region is a concept expressed by two or more words in the region;

analyzing the previously determined local concepts of each region to identify unrelated concepts having a predetermined degree of relationship with local concepts of other regions;

eliminating the previously identified unrelated concepts from a determination of a source meaning for the source article web page document, wherein the source meaning for the source web page document is a weighted vector of the relevant concepts expressed in the source web page document; and

matching the source article web page document with an item selected from a set of items ~~based at least in part on a relationship between~~ by comparing the previously determined source meaning and a meaning of the item.

15. (Currently Amended) The article of claim 14, wherein the operations further comprise ~~displaying~~ causing the matched item to be displayed on the source article web page document at a display device.

16. (Currently Amended) The article of claim 15, wherein~~[[:]]~~
~~the source article comprises a web page; and~~
the matched item comprises a keyword.

17. (Currently Amended) The article of claim 15, wherein~~[[:]]~~
~~the source article comprises a web page; and~~
the matched item comprises an advertisement.

18. (Previously Presented) The article of claim 14, wherein the operations further comprise displaying content associated with the matched item on the source article.

19. (Currently Amended) The article of claim 18, wherein:
~~the source article comprises a web page;~~
the matched item comprises a keyword; and
the associated content comprises an advertisement.

20. (Currently Amended) The article of claim 18, wherein:

~~the source article comprises a first web page;~~

the matched item comprises a second web page; and

the associated content comprises an advertisement.

21. (Currently Amended) The article of claim 18, wherein:

~~the source article comprises a first web page;~~

the matched item comprises a second web page; and

the associated content comprises a link to the second web page.

22. (Currently Amended) The article of claim 14, wherein matching the source ~~article~~ web page document with the item comprises matching the source ~~article~~ web page document with the item using a biasing factor.

23. (Canceled)

24. (Previously Presented) The article of claim 14, wherein eliminating the unrelated concepts comprises ranking the related local concepts.

25. (Previously Presented) The article of claim 1, wherein:

determining at least one local concept comprises determining a score for each local concept; and

the local concept with the highest score in each region comprises a most relevant local concept for that region.

26. (Previously Presented) The article of claim 25, wherein identifying unrelated regions comprises:

determining a revised score for each local concept;

determining a ranked global list of all local concepts based on the revised scores;

removing local concepts whose combined revised score contributes less than a predetermined amount of a total score of the global list to produce a resulting list;

identifying unrelated regions without a most relevant local concept on the resulting list;
and
removing local concepts expressed in the unrelated regions from the resulting list to
produce a list of relevant concepts.

27. (Previously Presented) The article of claim 26, wherein determining the source meaning comprises normalizing the revised scores for the relevant concepts.

28. (Currently Amended) A method for matching regions in articles to advertisements, the method performed by a document server implemented as a network of computer processors or as a single computer system, the document server executing a document engine, the method comprising:

accessing a source ~~article~~ web page document;

identifying a first content region and a second content region in the previously accessed source ~~article~~ web page document;

determining a first local concept expressed in the previously identified first content region and determining a second local concept expressed in the previously identified second content region, wherein determining the first and second local concepts comprises identifying words in the respective of the first and second content regions and aligning the words with concepts, wherein a local concept expressed is a concept expressed by two or more words in the respective region;

matching the first content region with a first advertisement from a set of advertisements ~~based at least in part on~~ by comparing the previously determined first local concept with a meaning of the first advertisement;

matching the second content region with a second advertisement from the set of advertisements ~~based at least in part on~~ by comparing the previously determined second local concept with a meaning of the second advertisement; and

~~displaying~~ causing the previously matched advertisements to be displayed on the source ~~article~~ web page document at a display device.

29. (Canceled)

30. (Currently Amended) The method of claim 28, wherein ~~displaying~~ causing the matched advertisements to be displayed comprises:

~~displaying~~ causing the first advertisement to be displayed in the first content region; and
~~displaying~~ causing the second advertisement to be displayed in the second content region.

Claims 31.-35. (Canceled)

36. (Currently Amended) A method for determining a source meaning for a web page document, the method performed by a document server implemented as a network of computer processors or as a single computer system, the document server executing a document engine, the method comprising:

receiving a web page document;
identifying a collection of different regions in the previously received web page document;

determining concepts expressed in each of the different previously identified regions in the collection, wherein determining the concepts expressed in each of the different regions comprises identifying words in each of the different regions and aligning the words with concepts, wherein concept is expressed in a region two or more words in the region are aligned with the concept;

identifying a first concept that was determined to be expressed in a first region as having a relatively low degree of relationship[[,]] wherein the first concept is and hence being unrelated to concepts expressed in other regions in the collection;

~~excluding the first concept from a determination of a source meaning for the document~~;
determining the source meaning for the web page document, wherein determining the source meaning includes excluding the previously identified first concept from the determination of the source meaning and the source meaning is a vector of representative concepts expressed in the web page document; and

making the previously determined source meaning available ~~to a user~~.

37. (Currently Amended) The method of claim 36, wherein identifying the collection of different regions in the document comprises identifying frames in ~~[[a]]~~ the web page document.

38. (Currently Amended) The method of claim 36, wherein identifying the collection of different regions in the web page document comprises identifying the different regions based on markup in the web page document.

39. (Previously Presented) The method of claim 36, wherein determining concepts comprises identifying collections of related words in each of the different regions in the collection.

40. (Currently Amended) The method of claim 36, further comprising:
based on the concepts expressed in each of the different regions in the collection,
selecting one or more advertisements; and
making the web page document and the selected advertisements available for output ~~to a~~
~~user~~.